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EPIGENETICS & EVOLUTION

Mutations & Fruit Flies

NOAH, 120 YEARS, & THE FLOOD

Antibiotic Resistance & Evolution

2016 Bound Volumes

Does Epigenetics Support Neo-Darwinian Evolution?

Jeff Miller, Ph.D.

NEO-DARWINIAN evolution, the popular version of evolution today, asserts that mutations provide the mechanism for the change required to evolve a single-celled organism into a human over time. Upon examination of the evidence, however, it is clear that mutations cannot provide the genetic information required for such change.[1] If mutations cannot provide the mechanism for the change required by neo-Darwinian evolution, what can? A recent area of study that some evolutionists are hopeful will provide an answer to that question is epigenetics.[2] Epigenetics is the term used to describe the mechanism whereby genetic traits are inherited—passed on to offspring—not from the DNA itself, like we usually think of inheritance, but rather, from "**over and above**"[3] DNA (e.g., from our environment[4]).

A recent study on mice provides an example of epigenetic inheritance in action. In a study published by *Nature Neuroscience*, scientists trained mice to fear the odor of cherry blossoms by shocking their feet.[5] They then studied the offspring of the mice and found that they were also afraid of the cherry blossom smell, without any shock training. In fact, they responded to even smaller amounts of odor than their parents, implying that the offspring were even more sensitive to the odor than their parents. Such examples of inheritance are epigenetic—the **expression** of genes is affected without an actual DNA change. Due to epigenetic inheritance, the evolutionist argues that evolution has occurred: positive change that is passed on to ancestors.[6]

Epigenetics involves the switching on or off of already existing genes in response to environmental factors. New genes are not being created in epigenetic inheritance.

In response, keep in mind first, that while the mice study is an example of evolution—change, in the general sense—it is not evidence of Darwin's "molecules-to-man evolution" or macroevolution. Rather, it would better fit under the category we might call **micro**-evolutionary change—horizontal evolution, rather than vertical. The offspring are still mice, for example. To conclude from such a study, "Therefore, humans could evolve from a single-celled organism," would be to blindly leap well beyond the actual evidence.

Second, the change that was found to occur appears to be temporary—only shown to last to the "grandmice" of the original mice. Thus, the change is not the permanent change required by the evolutionary model. Evolution requires changes that are fixed, not temporary. We are not temporarily humans, for example. We are humans "for the long run." In other words, epigenetic changes appear to affect more than one generation, but they ultimately reset.

Also notice that this epigenetic example does not fit the evolutionary paradigm in a fundamental way. A fundamental plank of Darwinian evolution is that evolution is random: nothing or no one guides the process. It is random change, coupled with natural selection filtering out the random changes that do not result in the best options. But notice that the mouse epigenetic inheritance example is far from being random. It is directed change.

And finally, keep in mind that epigenetics involves the switching on or off of **already existing** genes in response to environmental factors. New genes are not being created in epigenetic inheritance—i.e., no new information is being added to the genome. Epigenetics only involves how **existing genes**

are expressed. So they have to exist already. Blind cave fish, for example, still have their eye genes intact. Their eyesight is merely epigenetically "turned off." They did not become blind because of genetic mutation.[7]

In his book *Epigenetic Principles of Evolution*, Nelson Cabej of the University of Tirana states,

> [I]n 1973 Sadoglu came to the conclusion that the loss of eyes in cavefish was caused by mutations in genes responsible for eye development and that the number of degenerative mutations determines the degree of reduction or the loss of eyes. **Now we know that no loss or mutations in genes involved in the loss of eyes has occurred** in the blind hypogean form of *A. fasciatus mexicanus* [cave fish—JM]....In cavefish, investigators found that **all of oculogenic genes are functional**, and all of them are expressed normally.[8]

William Jeffery of the University of Maryland, who conducted the study that discovered that cave fish still have their eye genes intact, noted that while some evolutionists believed that "neural mutation" was responsible for the loss of sight by cave fish, "little or no experimental evidence has been presented to support or reject" that theory.[9] The eye genes of blind cavefish are still intact, but the expression of those genes appears to be affected by their environment.

Epigenetics does not provide the hoped for mechanism for molecules-to-man evolution, which **requires** the creation of libraries upon libraries of new genetic information. Notice that in epigenetics, like the mouse study example, creatures, through inheritance, are able to pre-adapt to their environments.

Pre-programming, without exception, is always evidence that a mind ultimately generated the program and information that is being conveyed.

Parents are able to pass on information to offspring without a word, giving them important instruction (though not always **necessarily** good information). This is an example of forward thinking and pre-planning. Thinking and planning—pre-programming—without exception, is always evidence that a mind ultimately generated the program and information that is being conveyed. That is solid evidence of design, not random accidents and evolution.[10]

ENDNOTES

1 Jeff Miller (2014), "God and the Laws of Science: Genetics vs. Evolution [Part I]," *Reason & Revelation*, 34[1]:2-10.

2 Kat Arney (2015), "Epigenetics: Your Lifestyle Can Change Your Genes," *New Scientist*, 228[3051]:39; Kevin Laland (2016), "Evolution Evolves," *New Scientist*, 231[3092]:42-43, September 24; Peter Bowler (2016), "Evolution (Part Two): Darwin and DNA," *New Scientist*, 231[3088]:43.

3 Ibid.

4 Helen Thomson (2016), "Health Depends On Dad's Sperm," *New Scientist*, 230[3069]:8-9.

5 Brian G. Dias and Kerry J. Ressler (2014), "Parental Olfactory Experience Influences Behavior and Neural Structure in Subsequent Generations," *Nature Neuroscience*, 17:89-96; cf. Mariette Le Roux (2013), "Mice Can 'Warn' Sons, Grandsons of Dangers Via Sperm," *Medical Xpress*, December 1, http://medicalxpress.com/news/2013-12-mice-sons-grandsons-dangers-sperm.html.

6 Arney, 2015.

7 Nelson R. Cabej (2012), *Epigenetic Principles of Evolution* (London: Elsevier), pp. 330-331; W.R. Jeffery (2005), "Adaptive Evolution of Eye Degeneration in the Mexican Blind Cavefish," *Journal of Heredity*, 96[3]:185-196, May/June.

8 Cabej, pp. 330-331,598, emp. added.

9 p. 185.

10 Special thanks to biochemist Dr. Joe Deweese for reviewing this article and offering helpful suggestions.

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Does the Development of Antibiotic Resistance in Bacteria Support Neo-Darwinian Evolution?

Jeff Miller, Ph.D.

IT is not uncommon to hear evolutionists claim that bacteria evolving a resistance to antibiotics are proof positive that Darwinian evolution (i.e., macroevolution) is true. Is that claim valid?

There is no question that bacteria can change or "evolve" in some sense. Fred Tenover, Director of the Office of Antimicrobial Resistance at the Centers for Disease Control and Prevention, summarized the ways in which bacteria can become resistant to antibiotics, explaining that bacteria can sometimes be intrinsically resistant to antimicrobial agents, but in other cases, there can be an acquisition of resistance.[1] De novo mutation can lead to such change or resistance genes can be acquired from other organisms through conjugation (where two bacteria join, pooling or exchanging their genetic information), and rarely, DNA transposition (i.e., transformation and transduction) can lead to bacterial resistance to antibiotics, where genetic information is absorbed by or transported into bacteria from outside sources.[2] The question is whether such changes imply that, (1) neo-Darwinian evolution is true (i.e., that creatures can evolve across phylogenic boundaries into a completely different kind of creature over time) or rather that (2) only microevolution or diversification of the bacteria "kind" (Genesis 1:11ff.) is true, i.e., small changes within bacteria that lead "to new varieties within a species,"[3] which, based on the observed evidence, operate within strict boundaries that disallow evolution across phylogenic boundaries. More specifically, when bacteria change through mutation, does that mean that the standard, modern evolutionary model, neo-Darwinism, is true (i.e., that mutations coupled with natural selection provide the mechanism for evolution from a single-celled organism to humans)?

In response, first note that although bacteria can change through the three aforementioned mechanisms, the bacteria are still bacteria after the change. They have not changed into a different kind of creature, and therefore, such changes would fall under microevolutionary change or diversification within the bacterium "kind." To suggest that because bacteria can change, a bacterium can, therefore, eventually change into a buffalo, is well beyond the actual evidence and requires a blind "faith" to accept.

Also keep in mind that it is misleading to claim that "bacteria evolve" anything—as though they intentionally improve themselves in response to a need. Evolutionary biologist and Distinguished Professor at Stony Brook University in New York Douglas J. Futuyma explained that "the adaptive 'needs' of the species do not increase the likelihood that an adaptive mutation will occur; mutations are not directed toward the adaptive needs of the moment.... Mutations have causes, but the species' need to adapt isn't one of them."[4] Bacteria cannot control any change that occurs in them. They cannot intentionally mutate as a response to antibiotics, and yet such intention is what evolutionists have suggested causes evolution—like the Lamarckian portrait of a horse straining to eat leaves from a tall tree and eventually evolving a long neck in order to accommodate that need. In the case of bacterial mutations, most of these mutations occur **at random** in a population of bacterial cells. Some mutations happen to enable bacteria to be resistant to a particular antibiotic, and others do not.

Further, consider that mutations do not add **information** to the genome, and the creation of information is necessary to evolve a single cell into a human.[5] Repeatedly copying the old 1972 Atari video game "Pong" will not one day cause it to spontaneously "evolve" into "Madden NFL 17" for PlayStation 4 or Xbox One, regardless of the copying errors that are produced along the way. In the same way, mutations will not generate the information necessary to evolve a creature into a human.[6] Information is always the product of a mind or sender.

As an example, consider bacteria in the presence of an antibiotic. If a mutation caused the export pump of a certain bacterium to be overexpressed, the change may allow that bacterium to remove the anti-

biotic more efficiently and, therefore, allow it to survive in the presence of the antibiotic. At the same time, neighboring bacteria may not survive the same conditions since their pumps were not over-expressed. So, bacteria without the mutation are selected against, and the mutated bacterium predominates. Notice, however, that this mutation did not require any new information, but, rather, involved changing existing information.

Finally, consider this important question: are mutated bacteria really better off, **over-all**? Evolution requires an over-all upward trend in an organism's state. Creatures must progress and become more complex over time in order for evolution to be true; but mutations, overwhelmingly, show a downward trend in species.[7] In those cases where mutations lead to beneficial outcomes, like those that lead to antibiotic resistance in bacteria, the change can actually tend to make those bacteria less viable **over-all**—e.g., outside of the environment where the antibiotic was present.[8] In the example of a bacterium with an over-expressed pump, in the absence of the antibiotic, it may not be advantageous to the bacterium for its pump to be over-expressed. In humans, genetic mutations that lead to, for instance, a milk allergy, might cause those individuals with the allergy to temporarily fare better if they live in areas where there are breakouts of infectious microbes in cow's milk. Over-all, however, the milk allergy could cause them to be deficient in calcium and potassium. Those with the sickle-cell trait—where one parent passes a mutated hemoglobin gene to a child and the other passes a normal gene[9]—do not die from having the trait, and they also tend to have a resistance to malaria because of it.[10] Does that mean that those with the sickle-cell trait are more fit, over-all, in comparison to those without it? Have they really evolved to a higher life form by acquiring the trait? Certainly not. Those with the sickle-cell trait can have serious health problems, and their children are more likely to develop the dangerous disease sickle-cell anemia, depending on the genes passed on by the other parent.[11] The negatives of the mutated hemoglobin outweigh the positives. The Second Law of Thermodynamics—the Universe is gradually deteriorating and decaying—demands that continual digression and deterioration occur in the genome, not progression toward higher beings as evolution requires. Genetic **entropy** is the rule.[12]

Bottom line: bacteria, and all living organisms, change over time, in harmony with how God created creatures in the beginning. God created distinct "kinds" of creatures during the Creation week, and representatives from many of those kinds were brought onto the Ark before the Flood. Those representatives had sufficient genetic potential to cause an immense amount of diversity to come about within those respective kinds over the centuries since the Flood.[13] Though the primary mechanism for that change is still being investigated, mutations do generate a degree of change in species. Those mutations, however, according to the evidence, do not have the potential to turn bacteria into something other than bacteria. Indeed, the Earth consistently "[brings] forth the living creature **according to its kind**" (Genesis 1:24).[14]

ENDNOTES

1 Fred C. Tenover (2006), "Mechanisms of Antimicrobial Resistance in Bacteria," *The American Journal of Medicine*, 119[6A]:S3-S10.

2 Joe Deweese (2015), "What is Horizontal Gene Transfer, and Does it Support Evolution?" *Reason & Revelation*, 35[9]:100-105.

3 "Microevolution" (2014), BiologyOnline.org, http://www.biologyonline.org/dictionary/Microevolution.

4 Douglas J. Futuyma (1983), *Science on Trial* (New York: Pantheon Books), pp. 137,138.

5 Note that the second and third mechanisms listed in paragraph two involve the addition of genetic information to bacteria, but it is a pooling of **already existing information**, not the generation of new information. The information already had to exist.

6 Jeff Miller (2014), "God and the Laws of Science: Genetics vs. Evolution [Part I]," *Reason & Revelation*, 34[1]:2-10.

7 Ibid.

8 Luke McNally and Sam P. Brown (2016), "Visualizing Evolution As It Happens," *Science*, 353[6304]:1096-1097, September 9. The authors acknowledge that "[a] key factor slowing the spread of antibiotic resistance is the cost of resistance; resistance mutations generally **reduce growth in the absence of the antibiotic**" (p. 1097, emp. added).

9 "Sickle Cell Trait" (2016), Centers for Disease Control and Prevention, https://www.cdc.gov/ncbddd/sickleecell/traits.html.

10 "Protective Effect of Sickle Cell Trait Against Maleria-Associated Mortality and Morbidity" (2012), Centers for Disease Control and Prevention, https://www.cdc.gov/malaria/about/biology/sickle_cell.html.

11 "Sickle Cell Trait" (2016), American Society of Hematology, http://www.hematology.org/Patients/Anemia/Sickle-Cell-Trait.aspx.

12 J.C. Sanford (2008), *Genetic Entropy & the Mystery of the Genome* (Waterloo, NY: FMS Publications), Kindle file.

13 Nathaniel T. Jeanson (2016), "On the Origin of Eukaryotic Species' Genotypic and Phenotypic Diversity: Genetic Clocks, Population Growth Curves, and Comparative Nuclear Genome Analyses Suggest Created Heterozygosity in Combination with Natural Processes as a Major Mechanism," *Answers Research Journal*, 9[2016]:81-122.

14 Special thanks to biochemist Dr. Joe Deweese for reviewing this article and offering helpful suggestions.

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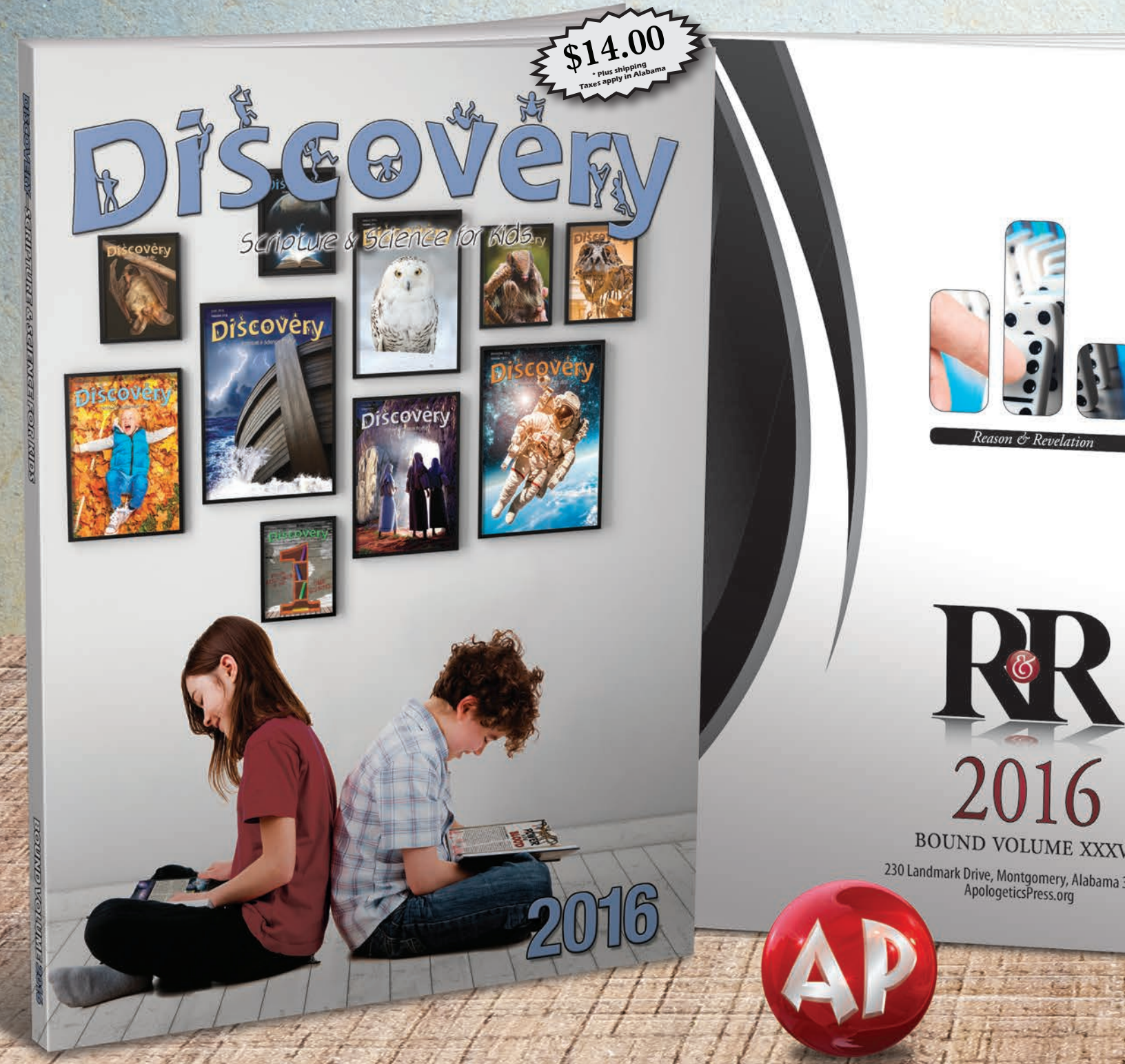

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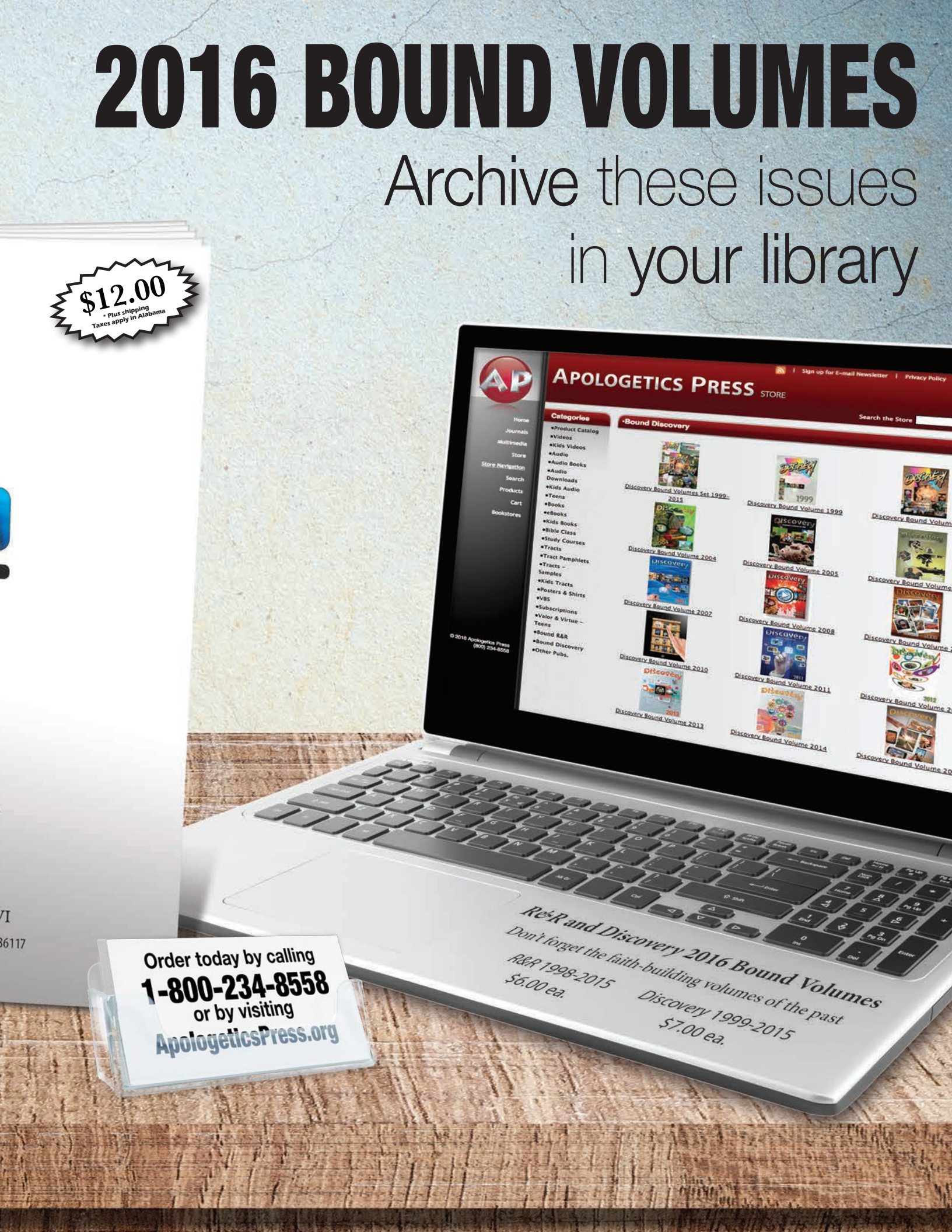


Fruit Fly Mutations: Evidence for Evolution?

Jeff Miller, Ph.D.

HUMAN pregnancies, on average, last 38-40 weeks—approximately nine months. This makes potential genetic change in the human race relatively slow. Not so with *Drosophila melanogaster*: the fruit fly. If you were to make a short list of creatures that could serve as examples to prove neo-Darwinian evolution to be a legitimate theory, the common fruit fly would probably be on the list.[1] Female flies can lay about 500 eggs in their lifetime, and each fly can grow from egg to adult in about a week[2]—translating to about 50 generations per year. After only a century of testing, scientists have been able to observe over 5,000 generations of fly reproduction. Thus, the fruit fly has been considered an ideal candidate for studying evolution in action. If mutations are the mechanism that would allow for molecules-to-man evolution as evolutionists suggest, then watching mutations, and even **causing** mutations in fruit flies to speed things up, could provide strong evidence to support that contention.

That is precisely how fruit fly evolutionary studies have been viewed for over a century. In 1910, *Science* magazine first published a paper on mutations in fruit flies.[3] Since then, observing fly reproduction and mutation has been a popular past time. The result after a century? Flies are still flies. Humans stepped in to "help nature" by carefully inducing various mutations (and trying to keep the flies alive afterwards). To be sure, thousands of different mutations have been documented, including flies without eyes, flies with different colored eyes, flies with their legs growing out of their heads instead of antennae, extra pairs of wings that do not function, different colored flies, flies with big wings, flies with useless wings, etc.[4] The result of such tampering was summarized well by Colin Patterson, the late paleontologist who served as the editor of the professional journal published by the British Museum of Natural History in London: "The spectacular effects of homeobox gene mutations were first seen in *Drosophila*, early in the history of genetics. Carriers of some of these mutations certainly qualify as monsters—**though without much hope**."[5] Such directed mutations have not resulted in evolutionary progress for fruit flies—rather, they have created monstrosities. And in spite of making such monstrosities, the mutated fruit flies are still understood to be fruit flies.

After a century of observing and inducing mutations, flies are still flies.

Further, notice that the above listed mutations that have been documented in fruit flies are all variations of already-existing information in the fly genome. The fly did not evolve fingers or fins, for example. Wings, antennae, eyes, and legs—all fly body parts affected by the mutations—were already part of the genetic code of the fruit fly. Nothing new was created, but evolution requires the generation of new genetic information since, according to evolution, a simple, single-celled organism had to eventually give rise to humans over time.

Finally, if evolution were true, after observing 5,000 generations of fruit flies in the last century, the fruit fly should have become the common ancestor of other creatures. In fact, we should not only see new species, but creatures that are transitional between the original fruit fly common ancestor and the new species. Instead, we continue to see flies—albeit, tortured flies. (Where are the animal rights people?)

Richard Goldschmidt was a famous geneticist who studied mutations in fruit flies. Goldschmidt is considered to be the first to integrate genetics, devel-

opment, and evolution. Years ago, upon studying fruit fly mutations extensively, he concluded that, in spite of the mutations that had been generated to that point, fruit flies were not providing the long sought proof of neo-Darwinian evolution. Publishing an article in *Scientific American*, Goldschmidt admitted major issues that existed in evolutionary theory (problems that still exist today). At the beginning of the article, titled "Evolution, As Viewed By One Geneticist," Goldschmidt quoted the famous inventor Orville Wright: "[I]f we all worked on the assumption that what is **accepted** as true is **really** true, there would be little hope of advance."[6] He then proceeded to

> *"It is true that nobody thus far has produced a new species or genus, etc., by macromutation."*

concede that, while scientists who are "entitled to judgment" agree that evolution is a fact, "in spite of nearly a century of work and discussion there is still no unanimity in regard to the details of the **means** of evolution."[7] In other words, though evolutionary scientists believe that evolution is true, they do not know how it could actually happen. Is it through mutations, as the consensus among evolutionists attests? Later in the article, Goldschmidt specifically responded to that question in discussing the studies that had been done on mutations and evolution:

> It is true that **nobody** thus far **has produced a new species or genus**, etc., by macromutation. It is equally true that nobody has produced even a species by the selection of micromutations. In the best-known organisms, like *Drosophilia*, innumerable mutants are known. If we were able to combine a thousand or more of such mutants in a single individual, **this still would have no resemblance whatsoever to any type known as a species in nature**.[8]

Bottom line: experimentation with fruit fly mutations does not provide the desperately needed evidence for Darwinian evolution. Rather, studies on fruit flies provide experimental evidence that effectively falsifies evolutionary theory.

ENDNOTES

1 The Microbiology Society points out that "[w]hen conditions are favourable such as the right temperature and nutrients are available, some bacteria like *Escherichia coli* can divide every 20 minutes. This means that in just 7 hours one bacterium can generate 2,097,152 bacteria." ["Bacteria" (2016), Microbiology Online, http://www.microbiologyonline.org.uk/about-microbiology/introducing-microbes/bacteria.] Bacteria, therefore, would be ideal candidates for studying asexual evolution. After one century of studying bacteria, scientists have seen over 2,600,000 generations of bacteria produced—the equivalent of over 78,000,000 years of human evolution (assuming a 30 year human generation). In spite of all of that time for evolution, **bacteria are still bacteria**.

2 Michael F. Potter (no date), "Fruit Flies," Entomology at the University of Kentucky, https://entomology.ca.uky.edu/ef621. [NOTE: The rate of fruit fly production is heavily dependent on temperature.]

3 T.H. Morgan (1910), "Sex Limited Inheritance in *Drosophila*," *Science*, 32[812]:120-122.

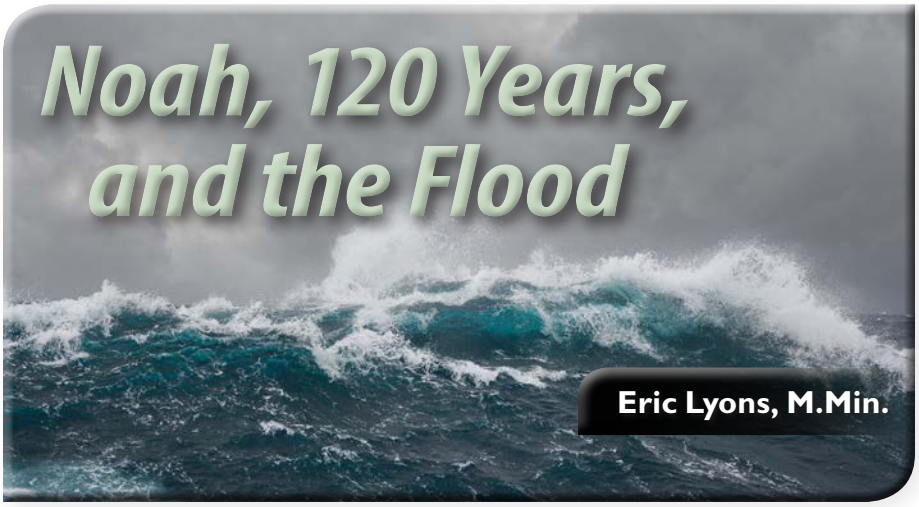
4 "Homeotic Genes and Body Patterns" (2016), Learn.Genetics: Genetic Science Learning Center, University of Utah, http://learn.genetics.utah.edu/content/basics/hoxgenes/; Elizabeth Service (no date), "The Wonderful Fruit Fly," HHMI, University of North Carolina at Chapel Hill, https://goo.gl/gSEZ8H.

5 C. Patterson (1999), *Evolution* (Ithica, NY: Cornell University Press), second edition, p. 114, emp. added.

6 Richard B. Goldschmidt (1952), "Evolution, As Viewed By One Geneticist," *Scientific American*, 40[1]:84, emp. added.

7 Ibid., p. 84, emp. added.

8 Ibid., p. 94, emp. added.



Noah, 120 Years, and the Flood

Eric Lyons, M.Min.

Q: "I am confused about some of the numbers found in Genesis 5-7. What exactly does the 120 years refer to in Genesis 6:3? I've heard some say that it refers to the limit of one's lifespan on Earth, but that can't be true because people lived longer than 120 years after the Flood. I also don't understand how, as some have concluded, it could refer to there only being 120 years left before God flooded the Earth. That seems impossible since Noah was 500+ years old when he learned about the Flood (Genesis 5:32-6:13), and the Flood occurred when he was 600 (Genesis 7:6). It seems that either the 120 years does not refer to the time just before the Flood or the "120 years" should have been "100 years" (otherwise the Flood would have come in the 620th year of Noah and not the 600th year). Can you help explain this conundrum?"

A: You have correctly concluded that the "120 years" reference in Genesis 6:3 does not allude to the limit of a person's lifespan on Earth. A number of people have lived longer than 120 since the Flood. Just five chapters after the "120 years" reference, we learn that after Noah's son Shem begot Arphaxad, "Shem lived five hundreds years" (11:11). Then, each patriarch listed after Arphaxad (for about the next 500 years) lived to be over 120 years old (and in most cases **well over** 120—Genesis 6:12-25). Abraham, Ishmael, Isaac, and Jacob all lived to be older than 120 (Genesis 25:7; 25:17; 35:28; 47:28). Even Aaron, the first high priest of Israel, who lived approximately 1,000 years after the Flood, lived to be 123 (Numbers 33:39). What's more, according to the *Encyclopedia of Genetics*, Jeanne Calment of France "died in **1998** at the age of **122**."[1]

Furthermore, immediate and remote Bible verses suggest the 120 years is a reference to something very different than the limit of a person's lifespan. The people on Earth during Noah's pre-Flood life were extremely wicked. In fact, "the wickedness of man" was so "great," that "every intent of the thoughts of his heart was only evil continually" (Genesis 6:5). The Earth had become so depraved and filled with so much violence by the time Noah was 500 that God decided to bring destruction upon the Earth, the likes of which the world had never seen (6:13; 7:6). However, since God is perfect in His patience and desires to see sinners repent rather than perish (whether in the Flood or in eternal hell—2 Peter 3:9; cf. Romans 15:4-5; 1 Timothy 2:4), "the Divine longsuffering waited in the days of Noah" (1 Peter 3:20). Similar to how God patiently waited hundreds of years before bringing judgment upon the increasingly wicked Canaanites (since at the time of Abraham their sin had "not yet reached its full measure"—Genesis 15:16, NIV), God waited year after year, and decade after decade "while the ark was being prepared" (1 Peter 3:20).

During this waiting period, God's "Spirit" contended with a works-of-the-flesh-loving mankind for 120 years (Genesis 6:3; cf. Galatians 5:19-21). Notice that when Peter wrote about Noah, his disobedient contemporaries, and the patience of God (1 Peter 3:20), he remarked that "**the Spirit**" of Christ "went and **preached** to the spirits in prison" (3:18-19, emp. added).

- **When** exactly did the Spirit of Christ do this? When "the Divine longsuffering waited **in the days of Noah**" (3:20, emp. added).
- **How** did God's Spirit go about His work? We are not informed in all the ways He worked during the years leading up to the Flood, but we do know that Noah was "a preacher of righteousness" (2 Peter 2:5). It may be that Lamech and Methuselah (Noah's father and grandfather) were also godly preachers through whom God's Holy Spirit spoke.

- **To whom** did the Spirit speak? Peter says, "To the spirits in prison, who formerly were disobedient" (3:19-20). How did **the** Spirit speak to spirits **in prison**? Dave Miller explained: "[A]t the time Peter was writing the words, that is where those people were situated. Those who were drowned in the Flood of Noah's day descended into the hadean realm, where they continued to reside in Peter's day. This realm is the same location where the rich man was placed (Luke 16:23), as were the sinning angels ("Tartarus"—2 Peter 2:4)."[2]

Indeed, in the days of Noah the Spirit of Christ spoke to disobedient souls (before they departed from their bodies in death for the hadean realm, i.e., "spirit prison"). Since God is longsuffering with mankind, He "waited patiently" (1 Peter 3:20, NIV). He did not bring judgment upon the world hastily. Our gracious God did not fail to give mankind ample time to repent. However, the Lord's **long**-suffering is not eternal suffering. He did not wait forever. Rather, as the Lord said in Genesis, "My Spirit shall not strive with man forever, for he is indeed flesh; yet his days shall be one hundred and twenty years" (6:3). It seems biblically consistent and perfectly logical to conclude that this period of 120 years was the amount of time that the human race as a whole had to repent before the Flood waters destroyed the Earth.

To some, however, this conclusion seems impossible. After all, if, before we ever learn about the coming Flood, Genesis 5:32 indicates that Noah was 500 years old when he "begot Shem, Ham, and Japheth," and Genesis 7:6 specifies that the Flood occurred when Noah was 600, then only 100 years of time is possible, not 120, right?

As with all perceived problems with the inspired Word of God, the difficulty is not with the inspired penmen, but with uninspired interpreters. There actually is no difficulty whatsoever **if** we take into account the fact that neither the book of Genesis nor the Bible as a whole was written in a strict chronological fashion.[3] For example, Genesis 2:5-25 does not pick up where Genesis 1 left off. What's more, Genesis 11 speaks of an event that actually occurred when some of the people mentioned in the **previous** chapter (Genesis 10) actually lived.[4] Similarly, the 120 years of Genesis 6:3 could reasonably extend back to when Noah was 480 years old, not 500. Simply because the Bible reader learns that Noah was 500 when he began having sons (Genesis 5:32),[5] does not mean that God could not have begun communicating at an earlier time about His impending judgment upon the world.

Finally, notice that Genesis 5:32 serves as the conclusion to the Adam-to-Noah genealogy. As with other Bible passages where one or more genealogies **precede** the mention of certain events that actually occurred **during** or **before** the lifetimes of some of those previously mentioned in the genealogies,[6] some of the events in Genesis 6:1-9 (including God's expressed warning in 6:3) took place **before** Noah actually began siring sons at age 500.

ENDNOTES

1 "Genetics of Ageing" (2001), *Encyclopedia of Genetics*, ed. Eric C.R. Reeve (New York: Routledge), p. 582, emp. added.

2 Dave Miller (2002), "Did Jesus Go to Hell? Did He Preach to Spirits in Prison?" Apologetics Press, http://apologeticspress.org/APContent.aspx?category=10&article=851&topic=71.

3 See Eric Lyons (2005), "Alleged Chronological Contradictions," *Reason & Revelation*, 25[10]:73-79, October, http://apologeticspress.org/APContent.aspx?category=6&article=1582.

4 Ibid.

5 Genesis 11:10, 7:6, and 8:13 seem to indicate that Shem was not the firstborn of Noah, but was born two years later. If so, the number 500 represents the year in which Noah **began** having sons. A comparison of Genesis 11:26, Acts 7:4, Genesis 11:32, and 12:4 suggests that Abraham was not the firstborn son in his family either. Likely, Shem, Abraham, Arphaxad (Genesis 11:10; 10:22) and others are all mentioned first for the same reason—because they are Messianic ancestors, not because they were necessarily the firstborn sons of their fathers.

Interestingly, numerous other Messianic ancestors, such as Seth, Isaac, Jacob, Judah, and Perez, were not firstborn sons. Lest someone accuse Moses of dishonesty when recording these genealogies, we must remember that "the year of begetting a first son, known in the Old Testament as 'the beginning of strength,' was an important year in the life of the Israelite (Gen. 49:3; Deut. 21:17; Psa. 78:51; and Psa. 105:36). It is this year...and not the year of the birth of the Messianic link, that is given in each case in Genesis 11" [John C. Whitcomb and Henry M. Morris (1961), *The Genesis Flood* (Grand Rapids, MI: Baker), p. 480.]

6 See 1 Chronicles 1-11 where people are listed (e.g., the children and grandchildren of Zerubbabel—3:19ff.) who would likely not even be born until sometime after the close of the events recorded in 2 Chronicles; cf. Ezra 1-5. See also Genesis 10-11.

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NOTE FROM The Editor

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Dave Miller

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